

Date: REVISED March 7, 2023

Number: TB-184

Tightening of loose screws on 100,000 BTU/h condensing gas models

Scope: Water heater models: GDHE-50 300/301 (Vertex™ 100)
GDHE-75 300/301
6G50100PDVH02 300/301 (Envirosense® PDV)
6G75100PDVH02 300/301
BTX-100 300/301 (Cyclone® HE)

A. O. Smith has recently become aware of occurrences of loose screws or nuts on our 100,000 BTU/h condensing gas models resulting in leaks from the combustion chamber.

If any of these conditions is found, tightening the screws/nuts, as follows, should eliminate any leakage:

1. Finger tighten the four (4) blower mounting screws in an X-pattern.
2. Torque the blower mounting screws, in the same X-pattern as when finger tightened, with an Allen wrench 1 to 1¹/₂ turns past finger tight or to a torque of 35 inch-pounds.
3. Loosen the two (2) site glass bracket screws and retighten each until the screw head comes in contact with the lock washer.
4. Torque the site glass bracket screws with a Phillips screwdriver 3 to 4 turns past contact with the lock washer or to a torque of 35 inch-pounds.
5. Finger tighten the four (4) burner flange nuts in an X-pattern until the nut comes in contact with the flange.
6. Torque the burner flange nuts, in the same X-pattern as when finger tightened, with a wrench 1¹/₄ to 1³/₄ turns past contact with the flange or to a torque of 80 inch-pounds.

Servicing requires trade knowledge in the areas of plumbing, electricity, venting, air supply, and gas supply. If you lack these skills or have difficulty understanding these instructions, you should not proceed. Enlist the help of the qualified service technician. Examples of qualified service technicians include those trained in the plumbing and heating industry, local gas utility personnel, and authorized service persons.